

**To:** Benjamin Simon[benjamin\_simon@ios.doi.gov]  
**Cc:** Bowman, Randal[randal\_bowman@ios.doi.gov]; Corey, Chad[chad\_corey@nps.gov]; Bob Vogel[bob\_vogel@nps.gov]; Deanna Mitchell[deanna\_mitchell@nps.gov]; Christine Powell[chris\_powell@nps.gov]  
**From:** Boone, Whitney  
**Sent:** 2017-07-21T11:15:02-04:00  
**Importance:** Normal  
**Subject:** Re: monuments review  
**Received:** 2017-07-21T11:17:54-04:00  
GCPNM\_07\_10\_17-NPS\_edits.docx

Hi Ben,

The attached document contains consolidated NPS comments on the Grand Canyon-Parashant report. Please let me know if you have any questions.

Thanks,

On Tue, Jul 11, 2017 at 1:48 PM, Bowman, Randal <randal\_bowman@ios.doi.gov> wrote:

Here are 10 additional monument economic reports for review. Some of these areas are jointly managed, either BLM-FS or BLM-NPS, and some by individual agencies. Please provide any comments to Ben Simon, copied on the email, with a copy to me, by next Friday the 21st, which will provide 10 working days for review.

----- Forwarded message -----

From: **Simon, Benjamin** <benjamin\_simon@ios.doi.gov>

Date: Tue, Jul 11, 2017 at 1:20 PM

Subject: monuments review

To: Randal Bowman <randal\_bowman@ios.doi.gov>

Cc: Ann Miller <ann\_miller@ios.doi.gov>, "Stern, Adam" <adam\_stern@ios.doi.gov>, Christian Crowley <christian\_crowley@ios.doi.gov>, Sarah Cline <sarah\_cline@ios.doi.gov>

Hi Randy,

Here are drafts for the following monuments:

Grand Canyon Parashant

Grand Staircase

Sonoran

Ironwood Forest

Canyons of the Ancients

San Gabriel

Giant Sequoia

Carrizo

Mojave

Vermillion

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e would appreciate it if these could be circulated for comment.

Ben

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Park Planning and Special Studies  
National Park Service  
202 354 6970

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# Grand Canyon-Parashant National Monument

## Economic Values and Economic Contributions

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### Introduction

The purpose of this paper is to provide an overview of the economic values and economic contributions of the activities and resources associated with Grand Canyon-Parashant National Monument (GCPNM or the Monument). The GCPNM is located entirely within Mohave County in northwest Arizona, bordering Nevada to the west and near the southern border of Utah. With the Grand Canyon along the south perimeter, the GCPNM can only be accessed through rough, unpaved roads from the north, west, and northeast. For context, this paper provides a brief economic profile of the surrounding area, focused on Mohave County, Arizona and supplemented with basic and relevant information for Clark County, Nevada; Washington County, Utah; and Coconino County, Arizona.

#### *Grand Canyon Parashant National Monument, Arizona*

**Location:** Mohave County, AZ

**Managing agencies:** NPS, BLM

**Adjacent cities/counties/reservations:**

- Clark County, Nevada to the west;
- Washington County, Utah to the north;
- Coconino County, Arizona to the east

**Resources and Uses:**

- ☒ Recreation ☐ Energy ☐ Minerals  
☒ Grazing ☐ Timber ☒ Scientific Discovery  
☒ Tribal Resources ☒ Cultural / Paleo Resources

### Background

The GCPNM was established by President Clinton on January 11, 2000 (Proclamation 7265) and is jointly managed by the National Park Service (NPS) and the Bureau of Land Management (BLM) under a Service First Agreement. The Monument consists of 1,048,321 acres including 808,744 acres of BLM-administered land, 208,447 acres of NPS-administered land, 23,205 acres of Arizona State Trust lands, and 7,920 acres of private land. NPS-administered lands within the monument are part of the Lake Mead National Recreation Area legislated unit, established by Congress in 1964. There are four Wilderness Areas located on the Monument, accounting for just over 93,000 acres. The Foundation Document for the GCPNM summarizes the purpose of the Monument to: “protect undeveloped, wild, and remote northwestern Arizona landscapes and their resources, while providing opportunities for solitude, primitive recreation, scientific research, and historic and traditional uses.”<sup>1</sup> To protect objects within the Monument, the Proclamation directed the following management:

- Prohibit all motorized and mechanized vehicle use off road, except for emergency or authorized administrative purposes.
- Withdraw from all forms of entry, location, selection, sale, or leasing or other disposition under the public land laws including mineral and geothermal leasing.
- Only permit the sale of vegetative material if part of an authorized science-based ecological restoration project.
- BLM continue to issue and administer grazing leases within the portion of the Monument within the Lake Mead National Recreation Area (consistent with the Lake Mead National Recreation Area authorizing legislation) as well as the remaining portion of the Monument.

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The Proclamation also states that the establishment of the monument is subject to valid existing rights.

The GCPNM boundary occupies approximately 12% of the area of Mohave County. Communities in Clark County, Nevada; Washington County, Utah; and Coconino County, Arizona also serve as access

<sup>1</sup> DOI. 2016. Foundation Document, Grand Canyon-Parashant National Monument. As stated in document, “The purpose statement identifies the specific reason(s) for establishment of the monument. The purpose statement for Grand Canyon-Parashant National Monument was drafted through a careful analysis of its enabling presidential proclamation and the legislative history that influenced its development.

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points to the Monument and are therefore connected economically and socially to the Monument. Individuals from the Hopi, Southern Paiute, Hualapai, Havasupai, and Navajo tribes continue visiting sites, gathering, and using resources in the Planning Area.<sup>2</sup>

#### *Public Outreach Prior to Designation*

In November 1998, former Department of Interior Secretary Babbitt went to Northern Arizona and began a dialogue that included two more visits, two large public meetings, and more than 59 other meetings with concerned local governments, tribes and other groups regarding the future of these lands.<sup>3</sup>

A December 21, 1999 briefing paper for the Secretary described the position of interested parties as follows: "Legislation was introduced in August 1999 by Senator Kyl (S. 1560) and Congressman Stump (H.R. 2795) proposing a National Conservation Area designation for the region. Stump's bill would actually lower protections in existing law. No hearings have been held on Kyl's legislation. Environmental groups have expressed support for the monument designation, most notably, The Grand Canyon Trust. The Arizona Strip Grazing Board has expressed general opposition to further designation, but stated that if a proposal is pursued, they would like to work with those making the designation to ensure grazing activities continue. Private land owners, recreationists and mining interests have expressed concerns over possible restrictions and changes to past agreements, but desire to participate in the process."

#### *Local Economy and Economic Impacts*

Table 1 summarizes some key demographic and economic indicators for Mohave County, Arizona and the state as a whole. While the county accounts for just 3 percent of the state's population, the percent increase since 1990 was larger than the state (118% compared to 81%). The unemployment rate in Mohave County is higher than the state and a substantial portion of the Mohave County workforce are employed in jobs outside the county. This observation is reflected in the ratio of jobs to population (33% in Mohave County compared to 53% for the state) and Bureau of Economic Analysis (BEA) personal income data that shows a net inflow of income. Furthermore, the median household income in Mohave County was 77% of the state average in 2015. The demographics of Mohave County consists of a relatively higher percentage of non-Hispanic whites compared to the state (78% compared to 57.5%) and, as shown in Table 1, a relatively small percentage of Native Americans. The USDA Economic Research Service (ERS) county-level typology codes indicate that Mohave County is a recreation-dependent county. That classification is supported, in part, by the relatively higher percentage of jobs in recreation/tourism related sectors (e.g., retail trade and accommodation and food services) in Mohave County in 2015 as reported by the BEA. The proportions of jobs in

Table 1. Mohave County and State of Arizona Economic Snapshot

Measure	Mohave County, AZ	Arizona
Population, 2016 <sup>a</sup>	203,362	6,641,579
Native American % of population <sup>a</sup>	2.1%	4.1%
Employment, December 2016 <sup>c</sup>	67,304	3,542,969
Unemployment rate, March 2017 <sup>b</sup>	5.5%	3.9%
Median Household Income, 2015 <sup>a</sup>	\$38,488	\$50,255

<sup>a</sup> U.S. Census Bureau, 2011-2015 American Community Survey

<sup>b</sup> [https://laborstats.az.gov/sites/default/files/documents/files/emp\\_report.pdf](https://laborstats.az.gov/sites/default/files/documents/files/emp_report.pdf)

<sup>c</sup> U.S. Bureau of Economic Analysis (BEA), Regional Economic Accounts, Table CA25N.

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<sup>2</sup> BLM and NPS. 2007. The Proposed Resource Management Plan/FEIS for the Arizona Strip Field Office, the Vermilion Cliffs National Monument, and the BLM Portion of Grand Canyon-Parashant National Monument, and a Proposed General Management Plan/Final EIS for the NPS Portion of the Canyon-Parashant National Monument.

<sup>3</sup> White House Press Release.

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Mohave County associated with other natural resource related sectors are relatively low (0.9%, 0.2%, 0.4% for the Farm, Forestry, fishing, & agriculture, and Mining sectors, respectively) and are comparable to the state as a whole.

Non-labor income (income from dividends, interest, and rent and transfer payments) has become an increasingly large source of total income within the county, reaching over 52 percent of all income as of 2015 (compared to about 40% for the state as a whole). A relatively high proportion of this non-labor income is associated with age-related transfer payments (Social Security and Medicare) which is reflective of the relatively older population in the county compared to the state as a whole.

As noted above, communities in Clark County, Nevada; Washington County, Utah; and Coconino County, Arizona are common access points for the Monument. Coconino County has a population around 135,000 with half of the population living in Flagstaff. A relatively small portion of Coconino County provides easy access to the Monument. The Town of Fredonia (population around 1,300) represents the main access point to the Monument from Coconino County and bills itself as "the gateway to the North Rim of the Grand Canyon."<sup>4</sup> Washington County, Utah has a population around 155,000 with half of the population living in St. George. The County is classified by ERS as recreation dependent. St. George, an access point for the GCPNM, has been a tourist destination since the 1960s and provides access to a number of other National Parks and Monuments.<sup>5</sup> Clark County, Nevada has a population of around 2.1 million with the vast majority of the population living in the greater Las Vegas area. The closest communities in Clark County to the Monument are Mesquite (population of about 17,000) and Bunkerville (population of about 1,000). Mesquite is a "growing resort destination"<sup>6</sup> providing local activities (such as golf and casinos) and access to a range of publically managed lands. Information on the primary economic drivers for Bunkerville are not readily available.

#### Activities and Resources Associated With GCPNM

Activities taking place on and resources within the GCPNM include:

- Recreation:** As described in the Final Environment Impact Statement (FEIS) associated with the GCPNM Resource Management Plan, GCPNM's remote, open, sparsely developed area and engaging scenery provides a wide array of dispersed recreation opportunities for moderately regulated recreation. Exploration, driving for pleasure, hiking, backpacking, camping, picnicking, big and small game hunting, and wildlife observation are the most common activity types. Motorized or mechanized vehicle, small aircraft, walking, or equestrian are typical modes of travel. Approximately 30,000 visits to the GCPNM resulted in \$1.8M in expenditures in local gateway regions in 2016. These expenditures supported a total of 27 non-BLM jobs, \$0.9 million in labor income, \$1.5 million in value added, and \$2.6 million in economic output in local gateway economies surrounding the Monument. The total consumer surplus associated with recreation at the GCPNM in 2016 was

Table 2. Estimated Economic Contributions, 2016

Activities	Economic output (\$millions)	Value added (net additions to GDP), \$ millions	Employment supported (number of non-BLM jobs)
Recreation*	\$2.6	\$1.5	27
Grazing	\$3.7	Grazing value-added is not available	100

\*Source: BLM data.

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<sup>4</sup> See <http://www.fredoniaaz.net/>.

<sup>5</sup> See <https://www.sgcity.org/aboutstgeorge/>.

<sup>6</sup> See <https://www.visitmesquite.com/about/>.

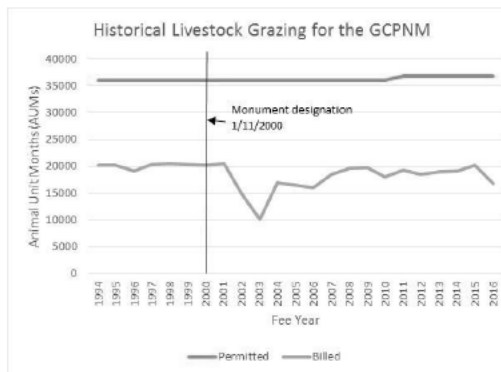


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estimated to be \$2.4M. This estimate is based on average consumer surplus values and participation counts for camping, big game hunting, other hunting, mountain biking, hiking, off highway vehicle, and general recreation.<sup>7</sup> The Proclamation's prohibition of all motorized and mechanized vehicle use off road was implemented through travel management decisions during the planning process. In general, the BLM considered motorized and mechanical use on existing routes to be consistent with the Proclamation. The BLM, based on input from interested stakeholders, classified existing routes open, closed, or administrative. The analysis in the Final Environmental Impact Statement (FEIS) concluded that routes identified for closure would have negligible impact on recreational off highway vehicle (OHV) use and the businesses in nearby communities that cater to those users.

- Energy:** The FEIS identified moderate potential for oil and gas and geothermal resources and no potential associated with coal, although the level of certainty associated with these ratings varies. Furthermore, the ratings were associated with the Planning Area as a whole so the potential within the GCPNM may differ. There are no active energy-related mineral production and no existing energy related right-of-way developments (including renewable developments) within the Monument. Given the remote setting and limited access, there has been very little interest in energy resources in recent decades. The designation withdrew the Monument from location, entry, and patent under mining laws, subject to valid existing rights.
- Non-Energy Minerals:** The FEIS identified moderate potential for sodium and high potential for metallic minerals, uranium, gypsum, and mineral materials (such as sand, stone, gravel, pumicite, and clay). Again, the ratings were associated with the Planning Area as a whole so the potential within the GCPNM may differ. The FEIS describes historical mining within the Monument associated primarily with copper and residual amounts of the other metals and hardrock minerals as well as uranium ore exploration. These activities occurred in the 1910s through the 1980s. There are no active mining claims in the Monument. Given the remote setting and limited access, there has been very little interest in non-energy mineral resources in recent decades. The designation withdrew the Monument from location, entry, and patent under mining laws, subject to valid existing rights.
- Grazing:** The BLM issues and administers grazing leases on both BLM and NPS administered lands within the Monument. The Proclamation states that management with respect to livestock grazing would not be altered by the designation of the Monument. At the time of the FEIS (based on 2004 data), the BLM administered 28 grazing allotments and managed them in cooperation with 25 permittees throughout the Monument. The permits authorized 38,000 Animal Unit Months (AUMs), primarily associated with cattle operations. Figure 1 shows permitted and billed AUMs from 1994 through 2016.

Figure 1 GCPNM Grazing.



<sup>7</sup> Recreation unit value is a survey-based value for general recreation for the Intermountain region from the USGS Benefit Transfer Toolkit <https://my.usgs.gov/benefit-transfer/>. Economic value is the net benefit to recreational users (total benefits minus total costs).

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The figures shows that permitted AUMs have remained relatively stable over the 23 year period. Billed use (which approximates actual use) has fluctuated over time and ranging from a low of 28 percent to a high of 57 percent of the permitted AUMs. Various reasons, in any given year, affect the number of AUMs used by permittees such as drought conditions, market forces, and fluctuations in individual permittee livestock operations. Based on the 5-year average of recent annually billed AUMs (18,758), livestock grazing on the Monument has supported approximately 100 paid and unpaid (i.e., family labor) jobs annually resulting in approximate \$980,000 in labor income and generating about \$3.7 million in total economic output.

- **Timber:** Upon designation, the BLM and NPS were directed to only permit the sale of vegetative material if part of an authorized science-based ecological restoration project. The FEIS describes the limited opportunities and interest in commercial use of woodland products from within the Monument. No commercial activity associated with timber has been reported in the Monument since timber sales closed in 1958.
- **Resource values:** Monument designation is intended to protect scientific and historic objects. In general, these objects are valued by society but those values are not bought or sold in the marketplace and are therefore difficult to quantify. Below is a brief overview of the objects identified in Proclamation that the designation is intended to protect<sup>8</sup>:
  - **Scientific Investigation:** Scientific research and opportunities associated with the ponderosa pine ecosystem in the Mt. Trumbull area and ecological research opportunities made possible by the vast, remote, and unspoiled landscapes. Paleozoic and Mesozoic sedimentary rock layers are relatively undeformed and unobscured by vegetation, offering a clear view to understanding the geologic history of the Colorado Plateau. A variety of formations have been exposed by millennia of erosion by the Colorado River.
  - **Cultural (Historic and Archaeological) Resources:** Undisturbed archaeological evidence, displaying the long and rich human history spanning more than 11,000 years. Historic resources, including evidence of early European exploration, Mormon settlements, historic ranches, sawmills, and old mining sites.
  - **Paleontological Resources:** Abundant fossil record.
  - **Cultural Tribal Resources:** Individuals from the Hopi, Southern Paiute, Hualapai, and Havasupai tribes continue visiting sites, gathering, and using resources in the Monument.
  - **Recreation:** The value of recreation opportunities and experience extend beyond the economic activity supported by visitors to the Monument. The Monument provides iconic western viewsheds in a setting known for its solitude, natural soundscapes, internationally recognized night skies, and wilderness values.

### *Land Management Tradeoffs*

This section presents some information to help understand land management tradeoffs. Decision-making often involves multiple objectives and the need to make tradeoffs among those objectives. However, tradeoffs and decision making are often subject to constraints, such as Monument designations. In general, market supply and demand conditions drive energy and minerals activity; societal preferences and household disposal income affect recreation activity levels; and market prices and range conditions affect the demand for forage. Culturally important sites and unique natural resources, by definition, have

<sup>8</sup> In addition to the Proclamation, Chapter 1 of the FEIS provides a more detailed description of these objects and their significance.

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limited or no substitutes. A particularly challenging component of any tradeoff analysis is estimating the nonmarket values associated with GCPNM resources, particularly the nonmarket values associated with cultural and scientific resources.

Planning for permitted resource use on National Monuments will involve tradeoffs among different activities on the land area being managed in order to allow permitted activities that are compatible with Monument objects. Once designated, National Monuments continue to be managed under the multiple use mandate outlined in the Federal Land Policy and Management Act of 1976. In some cases, certain areas of the Monument may be appropriate for more than one use. After the careful consideration of tradeoffs, management decisions in those cases may prioritize certain uses over others. In other cases, land areas may be more appropriate for a particular use and activities could be restricted to certain areas of the Monument. These decisions are based upon whether a use is compatible with the designation. Factors that could inform these tradeoffs include demand for the good or activity, prices, costs, and societal preferences. Other considerations might include the timeframe of the activity - how long the benefits and costs of a given activity would be expected to extend into the future. Trust responsibilities and treaty rights should also be considerations.

In considering any tradeoffs, it is not just the level and net economic value associated with an activity that occurs in a given year that is relevant to decision making. Virtually all activities within the Monument occur over time and it is the stream of costs and benefits over a given period of time associated with each activity that is relevant. For example, recreation activities could continue indefinitely assuming the resources required for recreation remain intact and of sufficient quality for individuals to remain interested in the activity. Likewise, the values associated with the natural and cultural resources could continue indefinitely, provided they are not degraded by other activities (and assuming preferences do not change). Grazing could also continue indefinitely as long as the forage resource is sustainably managed and remains consistent with the protection of Monument resources. Timber harvest may also continue indefinitely as long as the timber resource is sustainably managed. The stream of costs and benefits associated with some other non-renewable resources would be finite, however (assuming these activities were consistent with the designation). For example, oil, gas, coal and minerals are all non-renewable resources and would only be extracted as long as the resource is economically feasible to produce.

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